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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,321	09/30/2003	Ohad Zeliger	EMC03-18(03088)	4643
7590 Barry W. Chapin, Esq. CHAPIN & HUANG, L.L.C. Westborough Office Park 1700 West Park Drive Westborough, MA 01581			EXAMINER SEYE, ABDOU K	
			ART UNIT 2194	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			04/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/674,321

Applicant(s)

ZELIGER ET AL.

Examiner

Abdou Karim Seye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-15, 17-24, 26-29 and 31-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-15, 17-24, 26-29 and 31-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment filed on February 21, 2007 has been received and entered. The amendment amended Claims 1, 14, 17-18, 28 and 31-33 and cancelled claims 4, 16, 25 and 30. The currently pending claims considered below are Claims 1-3, 5-15, 17-24, 26-29 and 31-33.

Claim Objections

2. Claim 26 is objected to, because the applicant cancelled claim 25 and claim 26 is dependent of claim 25. The applicant is required to cancel the claim or to correct the element "of claim 25 " to place the claim in proper dependent form .

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5-11, 13-15, 17-24, 27-29 and 31-33 are rejected under 35 U.S.C. 102(b) as being anticipated by **Whitehead, et al. (US 6085030)**.

Claims 1,17 and 31-33: Whitehead discloses a method, system and software product for remote invocation of an object in a base object library via a remote access object library comprising:

a. Invoking via a client application interface an API object reference in the remote access object library/model (fig. 2/210, col.7, lines 16-20);

b. Identifying a corresponding native object to the invoked API object (fig. 2, col. 7, lines 16-20);

c. Instantiating the identified native object (fig. 2, col. 7, lines 48-50);

and

d. Maintaining a link between the instantiated API object (Fig. 5: 500, col. 11, lines 58-67; user instantiating an object associated with an application that sends the request) and the corresponding native object (Fig. 2, col. 7, lines 25-53; binding of applications object to component objects natively), the link providing a dynamic reflection of the native object in the API object (col. 8, lines 38-43; application requested object resembling/reflecting a native object) , maintaining the link further comprising referencing (col. 8, lines 15-32; returning the object reference registered), in a realtime manner, the native object in response to operations to the instantiated API object, such that the operations produce a nonduplicative, atomic result in the native object via the instantiated API object.

Claims 2 and 19: Whitehead discloses a method, system and software product for remote invocation of an object as in claims 1, 17 and 31-33 above and further discloses the steps of:

- a. Copying the native object in an object space; object repository (fig.2, col. 7, lines 55-67);
- b. Identifying attributes of the native object (fig. 4, col.11, lines 5-10; fig. 2, col. 7, lines 55-67); and
- c. Populating the values for the attributes (fig. 2, col. 8 lines 64-67, col. 9, lines 1-2).

Claims 3 and 20: Whitehead discloses a method, system and software product for remote invocation of an object as in claims 2 and 19 above and further discloses the step of determining the attribute values of the corresponding instantiated API object (fig. 2, col. 8, lines 64-67, col. 9, lines 1-2; col. 10, lines 27-35).

As per claim 21, it is rejected for the same reason as claim 1 above.

Claims 5 and 22: Whitehead discloses a method, system and software product for remote invocation of an object as in claims 1, 17 and 31-33 above and further discloses that the steps of:

- a. Traversing objects in the remote access object library; tree (fig. 4, col. 11, lines 10-15);
- b. Invoking method/functionality (fig. 4, col.11, lines 40-45);

- c. Identifying the object in the object space/repository (fig. 4b/450);
- d. Determining a related object associated with the native object in the base object library (fig. 4b/472); and
- e. Receiving an instantiation of the related object (fig. 5, col. 11, lines 55-67).

Claims 6 and 23: Whitehead discloses a method, system and software product for remote invocation of an object as in claims 5 and 22 above and further discloses that the object identifier is a uniquely identifier of an instantiation of an object in an object space (fig. 4, col. 10, lines 1-20).

Claims 7 and 24: Whitehead discloses a method, system and software product for remote invocation of an object as in claims 1, 17 and 31-33 above and further discloses that the base object library further comprises exposed and local objects with their attributes (fig. 1; fig. 5, col. 11, lines 55-67).

Claim 8 : Whitehead discloses a method, system and software product for remote invocation of an object as in claims 1, 17 and 31-33 above and further discloses the step of:

- a. Identifying templates corresponding to object types (fig. 3, col. 9, lines 40-45; fig. 4, col. 11, lines 1-5);
- b. Defining metadata (fig. 3/350; fig. 4, col. 11, lines 6-10); and
- c. Building object generator (fig. 1/240).

Claim 9: Whitehead discloses a method, system and software product for remote invocation of an object as in claims 8 and 25 above and further discloses the step of identifying native objects (fig. 2, col. 7, lines 16-20).

Claim 10: Whitehead discloses a method, system and software product for remote invocation of an object as in claims 8 above and further discloses the step of defining attributes of the objects (fig. 4, col. 11, lines 6-10).

Claim 11: Whitehead discloses a method, system and software product for remote invocation of an object as in claims 8 above and further discloses the step of defining a native administration application for managing the information on the network services (fig. 2, col. 8, lines 44-50).

Claims 13 and 27: Whitehead discloses a method, system and software product for remote invocation of an object as in claims 1, 17 and 31-33 above and further discloses the step of:

- a. Modifying the base object library (fig. 6, col. 13, lines 9-18; col. 14, lines 8-30); and
- b. Remapping the links between the API objects and a new corresponding native object resulting from the modifying (fig. 6 col. 12, lines 44-67; col. 14, lines 8-30).

Claims 14 and 18, Whitehead teaches a method Of defining and deploying a remote access object library corresponding to a base application object model comprising:

identifying a subset of objects in the base application object model as exposure objects for inclusion the remote access object library (fig. 3/314,324,334 col. 9, lines 3-6);

defining a client application interface accessible to a client application operable to provide accessibility references for the included objects (fig. 3/310, col. 7, lines 7-20);

defining, via a requirements instance manager, metadata indicative of attributes for objects in the remote access object library (fig. 3/350; fig. 4, col. 11, lines 6-10);

defining, via an architecture mapper, object templates corresponding to object types in the base application object model (Fig. 2: 258; description repository acting as a template; fig. 3, col. 9, lines 40-45; fig. 4, col. 11, lines 1-5), defining the object templates further comprising:

identifying object classes (col. 9, lines 21-46; java class object) for the object types in the base application object model; and

identifying, for each of the object types, attributes operable (col. 11, lines 20-25; object attributes and properties) for definition in the corresponding object in the remote access object library; and

generating, via an API object generator (Fig. 2/240; object factory), the remote access object library from the metadata and the templates.

Claims 15 and 29, Whitehead teaches,

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wherein defining metadata includes, for each exposed object and the corresponding native object in the identified subset in the object model, attributes corresponding to at least one of delayed or immediate translation, object identifier keys, attribute name mapping and attribute type conversion (fig. 6, col. 13, lines 1-32; col. 11, lines 20-25; object attributes and properties).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103 (a) which forms the basis for all obvious rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12 and 26 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Whitehead et al. (US 6772205).

Claims 12 and 26: Whitehead discloses a method for remote invocation of an object as in claim 11 above and further discloses that other alternative technologies are available than the Netware directory services (NDS) such as the Global component registry infrastructure (GCRI) (fig. 2, col. 7, lines 55-67). The NDS system provides management of the information stored in the component registry. But Whitehead does not explicitly disclose that the native application is a

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storage area network management application having a database of storage area network management information, the storage area network management application operable to manipulate agents corresponding to manageable entities, and wherein the remote access object library is a toolkit operable to provide API entry points into the storage area network management application in a non intrusive manner. However, Whitehead discloses that the **GCRI** includes compliant naming systems ODBC/JDBC, and compliant database databases such as ORACLE or SYBASE, flat file database (fig 2, col. 7, lines 65-67, col. 8, lines 1-2). Therefore it would be obvious to a person of ordinary skill in the art at the time the invention was made to modify Whitehead's invention and define the native application as a SYBASE database application that includes RDBMS and tools operable to provide API entry points into the storage area network management application in a non intrusive manner in order to enhance the speed in which a user of a database server can store, retrieve and present particular data records. Therefore, one would have been motivated to develop a Sybase application program for a client user in order to improve performance of the distribution and execution of objects including the user application object, across multi tiers of remote object access in a distributed computer environments.

Response to Arguments

7. Applicant's arguments filed February 21, 2007 have been fully considered but they are not persuasive.

a. Claim 1: Applicant argues that, "Whitehead does not teach instantiating the claimed API object". However, claim 1 recites the step of " maintaining a link between the instantiated API object and the corresponding native object", but not "instantiating the claimed API object". Applicant should amend the claim to clearly claim this element "instantiating the claimed API object" as a step of the method claim 1. Response to applicant's argument See the rejection of claim 1 above. Further, the applicant argues that, "Whitehead does not teach maintaining the dynamic reflection from the API object to the native object via the direct reference linkage". The examiner believes that a dynamic reflection from the API object to the native object is achieved by Whitehead's system and reference in (Fig. 2; col. 8, lines 40-44), since the object model of the requesting application resembles the returned native object component. Therefore the resemblance of the two objects shows that object reflection is taught in Whitehead's system and reference. Also, the elements "Java RMI " and "CORBA" in (FIG. 3, col. 9, lines 3-6) of Whitehead's reference meets the claimed limitation of the claim, since Java reflection packages are well known to be used in "Java RMI " and "CORBA" architecture for object reflection .

As for the remaining claims: Response to applicant's arguments see the rejections above.

Conclusion

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8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mandal et al (20030204557) discloses a method and apparatus for managing remote data replication using CIM providers in a distributed computer system.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exr. Abdou Seye whose telephone number is (571) 270-1062. The examiner can normally be reached Monday through Friday from 7:30 a.m. to 4:00 p.m.


If attempts to reach the examiner by telephone are unsuccessful, contact the examiner's supervisor, William Thomson at (571) 272-3718. The fax phone number for

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formal or official faxes to Technology Center 3600 is (571) 273-8300. Draft or informal faxes, which will not be entered in the application, may be submitted directly to the examiner at (571) 273-6722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-3600

AKS
April 12, 2007



WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER